

Day	Time	Presenter	Title	Number
Users Group Pre-Meeting				
Sunday	1:00	Greg Nelson	Overview of NASA Proton Radiobiology Facility at Loma Linda University	1
	1:30	Derek Lowenstein	Overview of the NASA Space Research Laboratory (NSRL) at Brookhaven National Lab	2
	2:00	Users Discussion Session	Review of NSRL Users Manual	
Sunday	3:30	Registration		
Scientific Overview Talks				
	4:30	Larry Donehower	Animal Models of Carcinogenesis and Aging	3
	5:00	M. Kastan	Molecular Determinants of Cellular Responses to DNA Damage	4
	5:30	D. Johann	Proteomics (need abstract)	5
	6:00	Elizabeth Travis	Translational Research (need abstract)	6
	6:30	Reception		
MONDAY				
	8:30	Shannon Lucid	Welcome from NASA Chief Scientist	
	8:40	Eleanor Blakely	Review of HZE radiobiology	7
DNA Damage Processing				
	9:10	Peter O'Neill	Formation and Processing of Radiation-Induced Clustered DNA Damage	8
	9:40	B.M. Sutherland	Bistranded DNA damage clusters induced by low LET radiation and heavy charged particles: formation and repair	9
	10:00	Bjorn Rydberg	Low-dose Measurements of DBS's Using a Dual-Label FAR Assay	10
	10:20	Coffee Break		
	10:40	M. Belli	DNA fragmentation and rejoining in human cells exposed to gamma-rays and charged particles	11
	11:00	J. Kiefer	The Relation between DNA-double strand breaks and mutations induced by heavy ion exposure	12
	11:20	M. Durante	Cytogenetic effects of 1 GeV/n iron ions shielded with different materials	13
	11:40	H. Wu	Truly incomplete and complex chromosomal aberrations	14
	12:00	Poster Overviews		
	12:10	LUNCH		
Cellular and Tissue Models of Signal Transduction, Aberrant Differentiation, and Apoptosis				
	1:30	M.H. Barcellos-Hoff	Interaction between tissue and cellular responses: TGF-beta 1 is a key mediator of the DNA damage response	15
	2:00	L.M. Green	Response of thyroid tissue units to space-like radiation fields	16
	2:20	A. Kronenberg	Apoptotic regulation and mutagenesis in human cells exposed to charge particles of importance for spaceflight	17

Day	Time	Presenter	Title	Number
	2:40	R.L. Wartens	LET-dependence of TP53 Response in human fibroblasts	18
	3:00	G. Nelson	Radiation-induced gene expression in the nematode c.elegans	19
	3:20	Coffee Break		
In-vivo and In-vitro model of Carcinogenesis				
	3:40	R. Ullrich	Need abstract	20
	4:10	J.F. Dicello	Comparison of preliminary results for the risk of mammary carcinogenesis in the sprague-dawley rat with previous experimental studies	21
	4:30	J. Ford	Radiation effects in respiratory systems	22
	4:50	P. Chang	Proton and Iron radiation effects in transgenic mice	23
	5:10	G. Calaf	Comparative studies between the effect of alpha particles and heavy ions in breast carcinogenesis	24

Day	Time	Presenter	Title	Number
Tuesday	8:00	G. Nelson	Refresher course: Running an Accelerator Experiment (Part I)	25
	Non-cancer Effects			
	8:40	K. Mabuchi	Non-cancer effects of radiation: what are the risks and the mechanisms?	26
	9:10	E. Blakely (P.Chang)	Iron ion-, proton-, and X-ray effects on human lens cell differentiation	27
	9:30	L. Chylack	Astronauts exposure to radiation in space flight, and risk of cataract	28
	CNS Radiobiology			
	9:50	J. Fike	Radiation and Neurogenesis	29
	10:20	Coffee Break		
	10:40	M. Vazquez	Cytotoxicity of low- and high-LET radiation on neural cells	30
	11:00	B.M. Rabin	Effects of exposure to different energies of Fe particles on neurochemical and behavioral endpoints	31
	11:20	J. Joseph	Putative Dietary prevention of the accelerated age-like effects of heavy particle irradiation	32
	11:40	A. Obenaus	Assessment of neuropathology following ⁵⁶ Fe exposure by magnetic resonance imaging and spectroscopy	33
	12:00	J. Archambeau	The proton radiation dose response in the rat brain cortical and white matter vasculature compared with the template measured for retinal vessels	34
	12:20	LUNCH		
	Radiation Sensitivity and Prevention Methods			
	1:30	M. Story	Identification of Individuals susceptible to normal tissue injury after receiving radiotherapeutic doses of ionizing radiation: development of predictive assays of clinical significance	35
	2:00	L.B. Smilenov	Haploinsufficiency for ATM confers radiation sensitivity	36
	2:20	M.A. Khadim	Genetic sensitivity and LET studies of space irradiation-induced genomic instability in vivo	37
	2:40	A.R. Kennedy	Countermeasures for the Biological Effects of Space Radiation	38
	3:00	J. Reuben	The Effects of gamma irradiation on the immune responses of mice with polyoma infection	39
	3:20	Coffee Break		
3:40	D. Gridley	Whole body irradiation and immune challenge with a virus-derived antigen	40	
Computational Models of Risk				
4:00	H. Nikjoo	Model of the Bystander Effect (need abstract)	41	
4:20	F. Cucinotta	Model of DSB Processing Competition: NHEJ and HR (need abstract)	42	
4:40	S. Curtis	IP model of cancer (need abstract)	43	
5:00	M. Scholz	Application of Local Effect Model to calculate cell transformation after high-LET radiation	44	
Wednesday	8:00	C. Zeitlin	Refresher Course: How to run an accelerator experiment part-II	45
	Radiation Critical Path Roadmap (CPR)			
	8:40	L. Leventon	Overview of Bioastronautics Critical Path Roadmap	46
9:00	TBD	Panel Discussion on CPR		

Day	Time	Presenter	Title	Number
	10:15	Coffee Break		
	Physics and Dosimetry			
Wednesday	10:30	C. Zeitlin	One year of results from the Martian radiation environment experiment (MARIE)	47
	10:50	R. Turner	MARIE observations of solar particle events	48
	11:05	J.W. Wilson	A new LEO ISS environment model	49
	11:20	J. Miller	Measurements of radiation transport in materials used in human space flight	50
	11:35	Komori	Study of the fluence and LET distribution of projectile fragments produced from heavy ion therapeutic beams	51
	11:50	B. Gersey	Neutron dosimetry using tissue equivalent and silicon equivalent proportional counters for eight high-energy neutron spectra	52
	12:05	T. Borak	Microdosimetry of heavy ions with different energies, but with similar LET	53
	12:20	E. Benton	Preliminary results from the first three ICCHIBAN Intercomparisons of space radiation detectors	54
	12:35	Adjourn		

Day	Time	Presenter	Title	Number
POSTERS	1	X. Hu	The number and reaction multiplicities of GCR nuclei and delta-rays passing through a cell nucleus on a Mars mission	55
	2	Pecaut	The effects of whole-body gamma irradiation on the immune response to LPS	56
	3	P. Saganti	Model calculations and visualization of GCR particle flux on the surface of Mars	57
	4	R. Singleterry	Development of collaborative engineering environments for spacecraft design	58
	5	M. Vazquez	Changes in cocaine-induced locomotor activity after exposure to 1 GeV/n Fe ions and gamma rays	59
	6	W. Atwell	Dose distribution in critical body organs: Phantom torso experiment during the ISS Increment 2 mission	60
	7	M. Moyers	Simulation of the proton beamline at MCNPX	61
	8	Obenaus	The non-invasive imaging laboratory at LLU: a resource for NASA scientists	62
	9	J.W. Wilson	Advances in space radiation transport codes	63
	10	N. Desnai	Quantification of radiation induced proteins	64
	11	G. Coutrakon	A proton beam delivery system for solar flare simulations at LLUMC	65
	12	M. Durante	Detection of gamma-H2AX foci formation in human peripheral blood lymphocytes exposed to accelerated charged particles	66